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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/779,445	02/12/2004	Larry K. Ball	H0006529--1180	8977
128	7590	03/13/2006	EXAMINER	
HONEYWELL INTERNATIONAL INC. 101 COLUMBIA ROAD P O BOX 2245 MORRISTOWN, NJ 07962-2245			HOPKINS, ROBERT A	
			ART UNIT	PAPER NUMBER
			1724	

DATE MAILED: 03/13/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/779,445

Applicant(s)

BALL ET AL.

Examiner

Robert A. Hopkins

Art Unit

1724

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-34 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 14-17 is/are allowed.
- 6) ☐ Claim(s) 1, 6, 8-13, 18-20, 23, 28 and 30-34 is/are rejected.
- 7) ☒ Claim(s) 2-5, 7, 21, 22, 24-27 and 29 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>2-12-04</u> | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1,6,8-13 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Eves et al(3000213).

Eves et al teaches a filter configured to be disposed within an air passage, comprising a main body(10) having first and second ends and a passageway extending therebetween, a leading edge(12), a trailing edge(14), and first and second sides, the first and second sides converging at least proximate the trailing edge(see figure 1) and separated from one another by a longitudinal slit(22) that extends along a section thereof, wherein the leading edge is configured to divide a main airflow containing particles into first and second airflow portions, the first airflow portion containing particles and being directed through the air passage and the second airflow portion being substantially particle free and directed through the longitudinal slit into the main body passage(see figure 3). Eves et al further teaches wherein the leading edge has a curved shape. Eves et al further teaches wherein the longitudinal slit extends the length of the main body. Eves et al further teaches wherein the longitudinal slit has sharp edges. Eves et al further teaches wherein the width of the longitudinal slit is between about .005-.010 inches. Eves et al further

teaches wherein the first and second sides have an angle between them of about 10-20 degrees. Eves et al further teaches wherein the first and second sides have an angle between them of about 13 degrees. Eves et al further teaches wherein the main body has a wing shaped cross section.

Claims 18-20 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Eves et al(3000213).

Eves et al teaches a method of constructing a filter comprising shaping a tube to include a leading edge, a trailing edge, first and second ends and a passageway that extends therebetween, cutting a longitudinal slit into the tube trailing edge, and sealing the tube first end. Eves et al further teaches wherein shaping the tube further includes shaping the tube into a wing shape. Eves et al further teaches sharpening the longitudinal slit of the tube trailing edge.

Claims 23,28³⁰⁻³⁴_A are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Eves et al(3000213).

Eves et al teaches a filter configured to be disposed within an air passage, comprising a main body(10) having first and second ends and a passageway extending therebetween, at least a portion of the main body being wing shaped, the wing shaped portion including a leading edge and a trailing edge, the trailing edge having a longitudinal slit therethrough that extends along a section thereof, wherein the wing shaped portion is configured to divide a main airflow containing particles into first and second airflow portions, the first

airflow portion containing particles and being directed through the air passage and the second airflow portion being substantially particle free and directed through the longitudinal slit into the tube passage(see figure 3). Eves et al further teaches wherein the leading edge has a curved shape. Eves et al further teaches wherein the longitudinal slit extends the length of the wing shaped portion. Eves et al further teaches wherein the longitudinal slit has sharp edges. Eves et al further teaches wherein the width of the longitudinal slit is between about .005-.010 inches. Eves et al further teaches wherein the first and second sides have an angle between them of about 10-20 degrees. Eves et al further teaches wherein the first and second sides have an angle between them of about 13 degrees.

Allowable Subject Matter

Claims 2-5,7,21,22,24-27,29 are objected to as being dependant upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 2 and 24 recite "further comprising: a sleeve coupled to the main body first end". Eves et al fails to teach a sleeve coupled to the main body first end. It would not have been obvious to someone of ordinary skill in the art at the time of the invention to provide a sleeve coupled to the main body first end because Eves et al does not suggest such a modification. Claims 3-5 depend on claim 2 and hence would also be allowable upon incorporation of claim 2

into claim 1. Claims 25-27 depend on claim 24 and hence would also be allowable upon incorporation of claim 24 into claim 23.

Claims 7 and 29 recite "wherein the leading edge has a beveled shape". Eves et al teaches a leading edge having a rounded shape. It would not have been obvious to someone of ordinary skill in the art at the time of the invention to provide a leading edge having a beveled shape because Eves et al does not suggest such a modification.

Claim 21 recites "further comprising coupling a sleeve to the tube second end". Eves et al fails to teach a step of coupling a sleeve to the tube second end. It would not have been obvious to someone of ordinary skill in the art at the time of the invention to provide a step of coupling a sleeve to the tube second end because Eves et al does not suggest such a modification.

Claim 22 recites "wherein the step of shaping the tube further comprises inserting a mold having a wing shape into the tube and crimping the tube around the mold". Eves et al teaches a tube with a wing shape, but does not teach a step of inserting a mold having a wing shape into the tube and crimping the tube around the mold. It would not have been obvious to someone of ordinary skill in the art at the time of the invention to provide a step of inserting a mold having a wing shape into the tube and crimping the tube around the mold because Eves et al does not suggest such a modification.

Claims 14-17 are allowed.

Claim 14 recites " a fluid control valve comprising a duct ; a valve disposed within the duct; an actuator coupled to the valve; a servo coupled to the actuator; and a filter disposed within the duct and in fluid communication with the servo, the filter comprising: a main body having first and second ends and a passageway extending therebetween, a leading edge, a trailing edge, and first and second sides, the first and second sides converging at least proximate the trailing edge and separated from one another by a longitudinal slit that extends along a section thereof, wherein the leading edge is configured to divide a main airflow containing particles into first and second airflow portions, the first airflow portion containing particles and being directed through the air passage and the second airflow portion being substantially particle free and directed through the longitudinal slit into the main body passage". Eves et al fails to teach a combination of a duct and a filter having structure as recited in claim 14 disposed within the duct. It would not have been obvious to someone of ordinary skill in the art at the time of the invention to provide a duct and a filter having structure as recited in claim 14 disposed within the duct because Eves et al does not suggest such a modification. Claims 15-17 depend on claim 14 and hence are also allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert A. Hopkins whose telephone number is 571-272-1159. The examiner can normally be reached on Monday-

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Friday, 7am-4pm, alternate Fridays off.

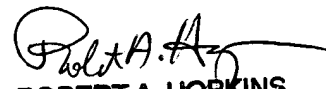
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Duane Smith can be reached on 571-272-1166. The fax number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval(PAIR) system. Status information for published applications may be obtained from either private PAIR or public PAIR.

Status information for unpublished applications is available through private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197(toll-free).

RAH

February 27, 2006


ROBERT A. HOPKINS
PRIMARY EXAMINER
